
U.S. Department of the Interior • U.S. Geological Survey

MINERAL INDUSTRY SURVEYS

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VANADIUM IN FEBRUARY 1997

The total reported consumption of vanadium in February was essentially unchanged from that reported for January according to the U.S. Geological Survey.

During February world vanadium prices continued to increase. U.S. ferrovanadium prices ranged from \$7.70 to \$9.10 per pound vanadium content compared with \$7.40 to

\$7.80 in January. Similarly, the range for European ferrovanadium prices increased from \$15.75 to \$19.00 per kilogram in January to \$18.00 to \$19.50 in February. For vanadium pentoxide, the February range was \$3.50 to \$4.00, while in January it was \$3.28 to \$3.70.

TABLE 1
U.S. CONSUMPTION AND CONSUMER STOCKS OF VANADIUM, BY FORM 1/

(Kilograms, contained vanadium)

	1996 p/		1997			
	January - December		January		February	
	Consumption	Stocks	Consumption	Stocks	Consumption	Stocks
Ferrovandium 2/	4,090,000	311,000	369,000	342,000	360,000	360,000
Oxide	13,400	6,610	1,120	6,880	1,120	6,610
Vanadium-aluminum alloy	W	11,300	W	9,770	W	11,800
Vanadium chemicals 3/	W	W	W	W	W	W
Other 4/	396,000	5,460	35,300	5,460	34,500	5,460
Total	4,500,000	334,000	405,000	364,000	396,000	384,000

p/ Preliminary. W Withheld to avoid disclosing company proprietary data; included with "Other."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes other vanadium-iron-carbon alloys as well as vanadium oxides added directly to steel.

3/ Includes vanadates, chlorides and other specialty chemicals.

4/ Includes other vanadium alloys, vanadium metal, and items indicated by symbol "W."

TABLE 2
U.S. CONSUMPTION OF VANADIUM, BY END USE 1/

(Kilograms, contained vanadium)

	1996 p/	1997		
	January - December	January	February	Year to date
Steel:				
Carbon	1,640,000 r/	159,000	148,000	307,000
High-strength low-alloy	933,000	83,100	77,500	161,000
Stainless and heat-resisting	21,600	1,650	1,610	3,260
Full alloy	1,050,000	80,800	79,500	160,000
Tool	409,000	39,800	48,900	88,700
Unspecified	--	--	--	--
Total steel	4,060,000 r/	365,000	355,000	720,000
Cast irons	W	W	W	W
Superalloys	17,300 r/	1,400	1,380	2,780
Alloys (excluding steels and superalloys):				
Cutting and wear-resistant materials	245	20	20	41
Welding and alloy hard-facing rods and materials	W	W	W	W
Nonferrous alloys 2/	W	W	W	W
Other alloys	W 3/	--	--	--
Chemical and ceramic uses:				
Catalysts	W	W	W	W
Other 4/	W	W	W	W
Miscellaneous and unspecified	427,000 r/	38,900	39,400	78,200
Total consumption	4,500,000	405,000	396,000	801,000

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Miscellaneous and unspecified."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes magnetic alloys, except for 1996.

3/ Magnetic alloys was included in this category for 1996.

4/ Includes pigments.

TABLE 3
U. S. EXPORTS OF ALUMINUM-VANADIUM MASTER ALLOY, FERROVANADIUM AND
VANADIUM PENTOXIDE (ANHYDRIDE) IN JANUARY 1997 1/

(Kilograms, vanadium content unless otherwise specified)

Material and country	Quantity	Value	Year to date	
			Quantity	Value
Aluminum-vanadium master alloy: 2/				
Austria	1,610	\$3,770	1,610	\$3,770
Canada	2,790	36,200	2,790	36,200
Germany	4,990	98,100	4,990	98,100
Japan	1,050	13,700	1,050	13,700
Mexico	10,100	131,000	10,100	131,000
United Kingdom	13,600	234,000	13,600	234,000
Total	34,200	517,000	34,200	517,000
Ferrovanadium:				
Canada	22,400	499,000	22,400	499,000
Mexico	20,900	373,000	20,900	373,000
Total	43,300	872,000	43,300	872,000
Vanadium pentoxide (anhydride): 3/				
Brazil	672	6,500	672	6,500
France	8,070	105,000	8,070	105,000
Italy	8,180	67,600	8,180	67,600
Total	16,900	179,000	16,900	179,000

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Gross weight.

3/ May include catalysts containing vanadium pentoxide.

Source: Bureau of the Census

TABLE 4
U. S. EXPORTS OF OXIDES AND HYDROXIDES OF VANADIUM AND VANADIUM METAL
IN JANUARY 1997 1/

(Kilograms, vanadium content unless otherwise specified)

Material and country	Quantity	Value	Year to date	
			Quantity	Value
Other oxides and hydroxides of vanadium:				
Canada	27,700	\$278,000	27,700	\$278,000
Israel	1,260	11,200	1,260	11,200
Japan	799	7,110	799	7,110
Total	29,800	296,000	29,800	296,000
Vanadium metal, including waste and scrap: 2/				
United Kingdom	80	2,570	80	2,570

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Gross weight.

Source: Bureau of the Census.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF ALUMINUM-VANADIUM MASTER ALLOY, FERROVANADIUM AND
VANADIUM PENTOXIDE (ANHYDRIDE) IN JANUARY 1997 1/

(Kilograms, vanadium content unless otherwise specified)

Material and country	Quantity	Value	Year to date	
			Quantity	Value
Aluminum-vanadium master alloy: 2/	--	--	--	--
Ferrovandium:				
Canada	69,200	\$1,160,000	69,200	\$1,160,000
China	57,000	802,000	57,000	802,000
Czech Republic	16,000	228,000	16,000	228,000
Germany	3,700	72,300	3,700	72,300
Japan	225	13,700	225	13,700
South Africa	30,500	465,000	30,500	465,000
Total	177,000	2,740,000	177,000	2,740,000
Vanadium pentoxide (anhydride): 3/				
South Africa	20,500	252,000	20,500	252,000

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Gross weight.

3/ May include catalysts containing vanadium pentoxide.

Source: Bureau of the Census.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF OTHER OXIDES AND HYDROXIDES OF VANADIUM AND VANADIUM
METAL, INCLUDING WASTE AND SCRAP IN JANUARY 1997 1/

(Kilograms, vanadium content unless otherwise specified)

Material and country	Quantity	Value	Year to date	
			Quantity	Value
Other oxides and hydroxides of vanadium:				
South Africa	9,640	\$122,000	9,640	\$122,000
Vanadium metal, including waste and scrap: 2/				
Germany	950	9,820	950	9,820
Russia	373	15,200	373	15,200
Total	1,320	25,000	1,320	25,000

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Gross weight.

Source: Bureau of the Census.

TABLE 7
U.S. IMPORTS FOR CONSUMPTION OF VANADIUM-BEARING ASH, SLAG AND RESIDUES IN JANUARY 1997 1/

(Kilograms, vanadium pentoxide content)

Material and country	Quantity	Value	Year to date	
			Quantity	Value
Ash and residues:				
Canada	11,700	\$5,540 2/	11,700	\$5,540
Mexico	45,300	122,000	45,300	122,000
Total	57,000	128,000	57,000	128,000
Ash and residues (not from the manufacture of iron and steel):				
Canada	191,000	45,600 2/	191,000	45,600
Slag, from the manufacture of iron and steel:				
South Africa	288,000	1,150,000	288,000	1,150,000
Other residues: (Not advanced in value)	--	--	--	--

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ All or part of these data have been referred to the Bureau of the Census for verification.

Source: Bureau of the Census.

TABLE 8
U.S. IMPORTS FOR CONSUMPTION OF MISCELLANEOUS VANADIUM CHEMICALS IN JANUARY 1997 1/

(Kilograms, vanadium content)

Material and country	Quantity	Value	Year to date	
			Quantity	Value
Sulfates:	--	--	--	--
Vanadates:				
Germany	7,320	\$100,000	7,320	\$100,000
Hydrides and nitrides:	--	--	--	--

1/ Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.